REMARKS

A Revocation and New Power of Attorney is submitted herewith. All correspondence in the above-captioned application should kindly be directed to the new correspondence address below. Formal Drawings and an Information Disclosure Statement with five (5) references are submitted herewith. Entry and consideration thereof are respectfully requested.

Claims 60-64, 71 and 72 are pending in the application. Claim 71 is amended slightly to address an informality. Claim 72 is a new claim directed to a method wherein the starch-based mixture utilizes a combination of longer and shorter fibers. The new claim finds support in the specification at least at page 12, lines 2-5. No new matter is added.

In the Office Action, claims 60-64 and 71 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,576,049 (Haas) in view of U.S. Patent No. 5,376,320 (Tiefenbacher). Applicants respectfully traverse the rejection and request reconsideration and allowance of the claims based on these remarks.

These claims were initially allowed in Paper No. 25, dated September 9, 2002. The Reasons for Allowance, at paragraph 8, stated the following about the prior art, including the Haas and Tiefenbacher references applied in the new rejection.

> The closest prior art found can be summarized as follows:
>
> Tiefenbacher (US 5,376,320) teaches "rottable" shaped bodies made by baking a composition that contains starch, fiber, and filler. The bodies may have plastic films applied to them. However, Tiefenbacher recites ingredients and plastic films that are not biodegradable and does not suggest how to select ingredients or films that give "completely biodegradable" products.

Haas (US 5,576,049) teaches cellulose acetate coatings as water repellant layers on shaped articles. However, it does not teach application of its coatings onto articles composed of the materials recited in claim 60.

Kharas (CA 2057669 abstract) teaches the use of polylactide coatings on fibrous webs to give biodegradable products. However, it does not teach the application of its coatings onto articles composed of the materials recited in claim 60.

In view of the above statements, which are basically completely correct, the following points should come as no surprise.

A. Specified Fiber Size Limitation

The Examiner argues that Tiefenbacher discloses fiber lengths of 0.03 mm to 1.5 mm at col. 9, line 12, and that the combination of these fibers in the process of Haas would have been obvious. However, Tiefenbacher does not teach or make obvious the claimed range of fiber sizes, and Haas specifically teaches away from using the fibers described in Tiefenbacher. No prima facie case of obviousness can be made relying on these references.

The Office Action does not explain why the claimed fiber size range of 0.24 - 4.32 mm would have been obvious in view of the disclosure in Tiefenbacher of lengths in the range 0.03-1.5 mm. In any given sample of fibers, all of the fibers do not have the same length. In other words, a fiber length is associated with a distribution of fiber lengths. Thus, a sample of fibers having lengths in the range of 0.03 to 1.3 mm is a finer sample than a sample having lengths in the range 0.24 to about 4.32 mm, even if individual fibers in both samples might have the same length.

The discussion of fibers in Haas at column 3, lines 1-15 expressly teaches away from making a combination with the fibers of Tiefenbacher. Haas notes that the prior art, Tiefenbacher specifically, was "previously limited" by the amount of water the fibers bind. Haas therefore suggests that the "the water requirement can be decreased by the use of pre-used fibers or hydrophobized fibers (chemically modified cellulose, natural fibers such as short flax fibers)." In this passage and the immediately following passage, Haas argues against using the same fibers used in Tiefenbacher. There is no indication on the record that "short flax fibers" are the same or similar sized fibers as Tiefenbacher, or that they have sizes in the claimed range. For this reason alone, Haas teaches away from using the fibers described in Tiefenbacher, and the asserted combination of references fails to make the claimed invention obvious.

It is not the case, as argued in Paper 20, that selection of fibers of suitable length is a matter of design/engineering choice (and in any event applicants understand that this argument has been withdrawn). As shown at least by Figure 6 of the present specification, which shows several fiber size distributions falling within the scope of claim 60, and demonstrated in the related Examples and the supporting text, the relationship between fiber size and fiber size distribution and product performance is complex and unpredictable.

Finally (with respect to the fiber size claim limitation), applicants have added a new claim (claim 72) wherein longer fiber sizes and shorter fiber sizes are combined in the starch-based composition. Of course neither Tiefenbacher, Haas, nor any other prior art reference of record teaches this combination. Applicants note that claims

having this limitation have been patented in the corresponding European application, as European Patent No. 850,269 B1.

B. Biodegradable Coating Limitation

Turning to the claimed step of applying a biodegradable, hydrophobic, softener-free, liquid impenetrable boundary layer to the starch-based article, applicants submit that this limitation is not taught in Tiefenbacher or Haas, and would not have been obvious in view of any combination of them.

In the Office Action, Tiefenbacher is said to teach the bonding of starch-based bodies to sheets of polyethylene terephthalate. The Examiner adds "[p]olyethylene terephthalate is a well known polyester." As the Examiner is probably well aware, polyethylene terephthalate (PET) is not biodegradable. Thus, Tiefenbacher does not disclose the claimed biodegradable coating.

In any event, the PET (and other backing materials) described by Tiefenbacher at column 16 lines 27-42 are not coatings applied to the surface of a baked starch-based article. These reinforcing materials are baked with the starch-based material to form a composite. In this regard it is important to read from the bottom of column 15 through column 16 of Tiefenbacher. Tiefenbacher does not show the claim element of applying a biodegradable, hydrophobic, softener-free, liquid impenetrable boundary layer to the starch-based article.

The Office Action has not relied on Haas to teach the claimed biodegradable, hydrophobic, softener-free, liquid impenetrable boundary layer applied to the starch-based article. Nevertheless, the reference must be address for all that it would teach to one of ordinary skill in the art (including teaching away from the claimed

invention). See M.P.E.P. 2141.02, citing *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983), cert. denied 469 U.S. 851 (1984).

For the record, applicants point out that the coating material described in Haas includes plasticizers (softeners).[1] See Haas column 10, lines 23- 38. It appears that the reason Haas is not relied on to teach a coating (when coatings are what the Haas patent is about), is because Haas requires the presence of plasticizer/softener, and therefore teaches away from the claimed biodegradable, hydrophobic, softener-free, liquid impenetrable boundary layer applied to the starch-based article. In this case, where the prior art teaches that a plasticizer is required to obtain a coating, that fact has to be taken into account when formulating a rejection of a claim which excludes plasticizer.

The specification presents evidence that the coating compositions without softener/plasticizer actually perform better than coatings that contain these ingredients. See Figure 16 and the supporting text. Thus, even if there was a prima facie case of obviousness that could be made with these two references, the specification provides evidence of non-obviousness (at least with respect to claim 64) which must be considered. See, M.P.E.P. §716.02(c).

Notwithstanding that this case was allowed and then withdrawn from issue so that a rejection could be made over references already of record, no mention at all is made of claim 64, which recites that the boundary layer is formed from compounds

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1/ Applicants submit that one of ordinary skill in the art recognizes that a "plasticizer" is the same thing as a "softener" in this context. Attached as Exhibits hereto are printouts from the internet: 1) a glossary from the Fasson Company gives "softener" as a definition of plasticizer; and 2) a product list from Acme-Hardesty (under the heading "Rubber") lists several compounds described as plasticizers in Haas at column 12, lines 1-10, and refers to them as softeners.

selected from the group consisting of cellulose acetate (CA), cellulose acetate propionate (CAP), and mixtures thereof. Tiefenbacher clearly does not disclose that coating. Haas does not disclose these components except in connection with plasticizers, which are described as "essential" in this context (see Haas, col. 11, lines 56-67).

In general, applicants submit that the rationale for making the asserted combination is insufficient. See In re Werner Kotzab, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000) ("[A] rejection cannot be predicated on the mere identification . . . of individual components of claimed limitations. Rather particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed."). As a reason for making the combination the Examiner offers that the specified fiber size would have been obvious "in order to make film-coated articles" which is not specific enough motivation to support a rejection under the statute.

In summary, the present Office Action has been received after a Notice of Allowance already issued in this case over references which were already accurately characterized in a Reasons for Allowance. In the new Office Action, the references have been applied almost without regard to explicit teachings in those references which the Examiner is apparently aware of. At least one claim (claim 64) has been entirely ignored. Tiefenbacher is relied upon to teach a biodegradable coating applied to a starch-based article, but the Office Action cites a section which teaches a non-biodegradable backing baked with the article. Haas' teaching of plasticizers in a biodegradable coating has been ignored. Evidence of unexpected results pertaining thereto have yet to be addressed.

For at least the foregoing reasons, applicants submit that the claims are allowable over the art of record and respectfully request that the application be passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should be directed to our below listed address.

Respectfully submitted,

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